Module Challenge 4 – Monash Bootcamp

Submitted by: Gabriel Adriano

Written Report

Analysis Summary

Overview: The data set presented is composed of data from 15 schools with a total of 39,170 students. The total budget for these schools is $24,649,428.00, with an average math score of 70.34 and an average reading score of 69.98. The percentage of students passing math is 86.08%, while the percentage passing reading is 84.43%. The overall passing rate, which considers both math and reading, is 72.81%.

The data has been filtered further looking for the top performing schools, bottom performing schools, scores by year level, spending, size, and type.

School Type: The three out of five for the top five performing schools came from the Independent Schools while four out of five for the bottom five performing schools came from the Government Schools.

Scores by School Spending: Increasing school spending per student does not seem to have a major impact on the scores that students get.

School Size: A Small to medium school size seems to mildly correlate with better scores compared to a larger size school (2,000 – 5,000).

Conclusions/ Comparisons/ Calculations

The type of school (Independent vs. Government) shows to have an impact on the overall passing rates of students (76.97% vs. 70.70%). This may suggest that school type plays a significant role in student performance. The given data set may be filtered further to detect whether those who have a higher overall passing rate tend to be Independent Schools and Smaller in Size to show whether the two data points are correlated.

Schools with a lower spending range per student (<$585 and $585-630) demonstrate a higher overall passing rate (76.72% and 79.88%) compared to schools in higher spending ranges ($630-645: 71.00%, $645-680: 66.76%). This may suggest that increased spending per student doesn't necessarily guarantee better academic outcomes, and more efficient allocation of resources should be explored.